NEW SOLID-STATE ELECTRONIC COUNTERS

DIGI-MASTER*

TOTAL MODULAR DESIGN

- **PREDETERMINING**
- **TOTALIZING**
- **BIDIRECTIONAL**

*Trademark of Veeder-Root Incorporated

VEEDER-ROOT

DIGI-MASTER

COUNTING / CONTROLLING

PLUG-IN CONNECTORS

No terminal strips. Plug-in design assures proper interconnection between power source, transducer and/or outputs

HEAVY-DUTY OUTPUT RELAYS

Dust tight, 10 amp, plug-in relays. Protectively enclosed for reliable performance under dusty and corrosive conditions. Long contact life

WRAP-AROUND STEEL ENCLOSURE

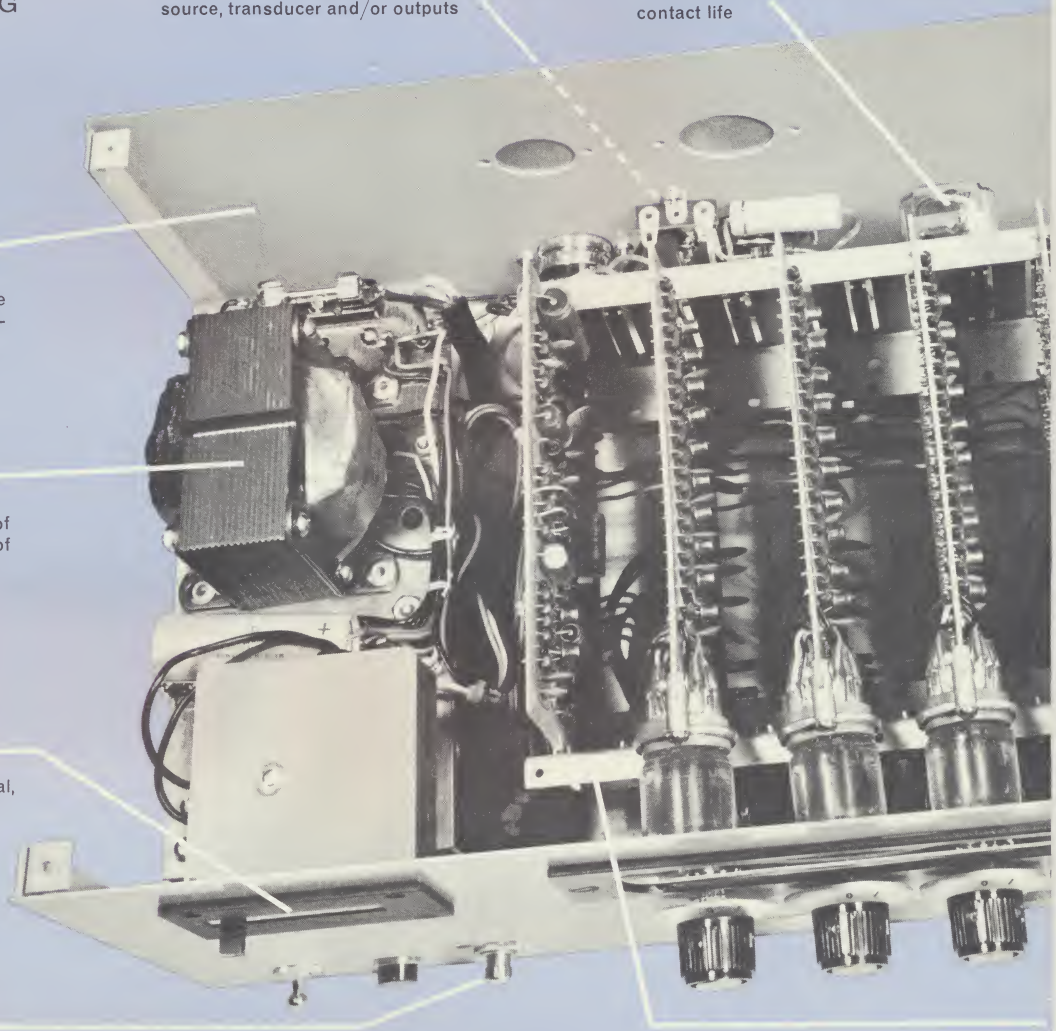
Wrap-around heavy duty steel enclosure provides rugged external protection. Attractively finished in blue and light grey

MODULAR POWER SUPPLY

Supplies regulated voltage for operation of counter—and filtering for suppression of most electrical noise and transients

BATCH TOTALIZER

High speed, long life electro-mechanical, batch totalizer optional on all models



MULTIPLE RESET

Manual, remote and automatic reset functions are standard

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PREDETERMINING

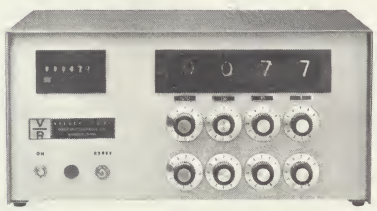
Digi-Master predetermining counters are a group of highspeed counting and controlling devices. They operate at speeds up to 50,000 counts/second and automatically recycle at speeds up to 10,000 counts/second—without loss of counts.

In operation, predetermining counters function in accumulative sequence. Each preset number must be higher in value than the preceding number. As the count reaches the preset value an output relay closes. A wide range of numerical control functions can be performed.

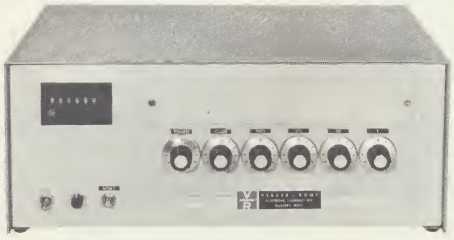
Typical applications:

- cutting to length
- batching and blending
- machine tool control

The line includes four basic models—with or without numerical readout and with one or two preset rows. Models are available for off-the-shelf delivery—as enclosed units or for 19″ rack mounting.



SERIES 1835



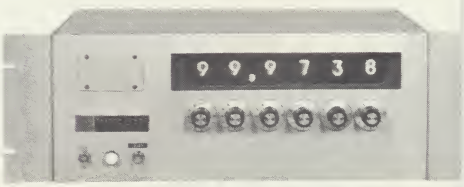
SERIES 1838

BIDIRE

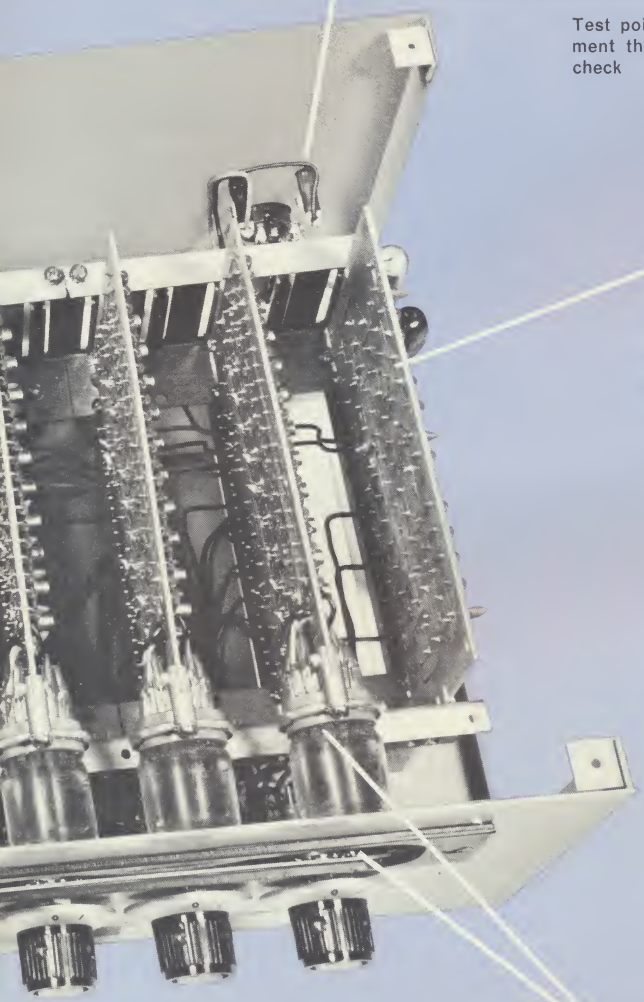
The new line of Digi-Master bidirectional counters offers the flexibility needed to meet industrial demands for position indication and control.

Two standard models are available. Series 1844 adds or subtracts through zero (001/000/999). Series 1845 adds or subtracts through zero with plus or minus indication (+001/+000/−001).

Both models are available with reset to zero or to a variable number, and with output signal at a predetermined position.



SERIES 1844

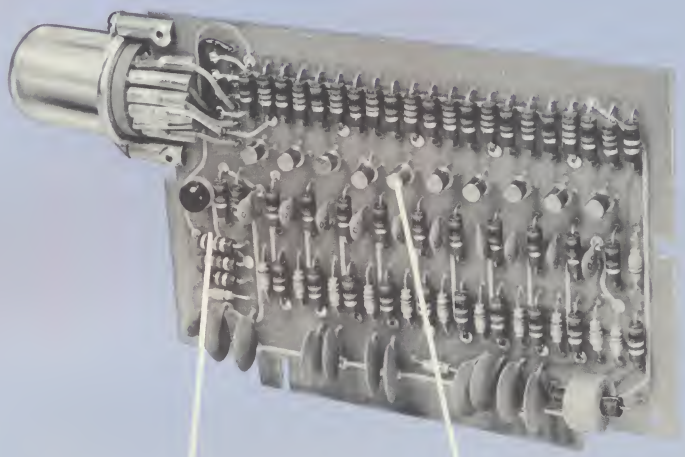


INPUT SIGNAL TEST POINTS

Test points assure proper photocell alignment through quick and simple voltmeter check

INPUT OPTIONS

Digi-Master counters are designed to accept a variety of standard input signals. Direct pulses, contact closures, photoheads are standard. Modified units will adapt to rotary pulse generator, magnetic or proximity probes or special input devices



Count Decade

COUNTING INDEPENDENT OF DISPLAY

All solid-state design assures continuous counting with or without display. Countboards are interchangeable

SOLID-STATE CONSTRUCTION

High reliability is designed into Digi-Master counters through specification of superior materials where it really counts. Silicon components offer reliable operation over wide temperature range

OTAL MODULAR DESIGN

er models utilize total modular on. Power supply, input, output, t circuits plug in quickly for ease aintenance

NUMERICAL READOUT

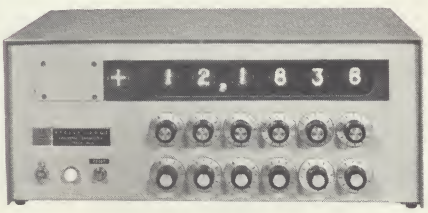
Large, long-life illuminated display provides in-line readout. Polarized window filter increases display visibility

CTIONAL

These units are capable of accepting input signals from a single source on individual lines—or from two separate sources which drive the counter in an add or subtract direction.

Typical applications:

- machine tool control
- multiple coordinate measuring control
- positioning and layout
- grinding and gauging



SERIES 1845

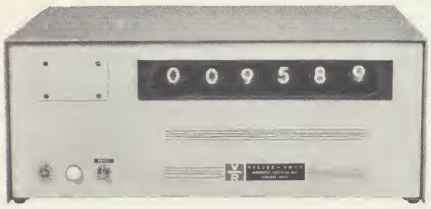
TOTALIZING

The Digi-Master Series 1840 is an all electronic numerical readout totalizing counter. It is available as a variable time base and frequency counter. It may also function as a gated totalizer.

Standard units operate at a count rate of 50 kc. Models can be driven by a variety of transducers.

Typical applications:

- meter proving
- batch and lineal measurement
- tachometers and digital clocks



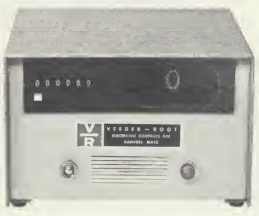
SERIES 1840

The Digi-Master Series 1843 combines the reliable, rugged, remote-reading features of electro-mechanical counters with the increased speed and life of electronic counters.

Standard units are compact and rated at 24,000 counts/minute. By adding electronic decades, counting speed can be extended by a factor of 10.

Typical applications:

- high speed counting of bottles, barrels, razor blades, fish, pills, silicon chips, dust particles—etc.



SERIES 1843

SPECIFICATIONS

PREDETERMINING/TOTALIZING

	1835	1836	1837	1838	1839	1840	1843
ILLUMINATED READOUT	x	x			x	x	x
PREDETERMINING—1 and 2 rows of presets. Standard. Up to 6 available	x	x	x	x			
DECADES—1 to 6	x	x	x	x	x	x	
1 OR 2 ELECTRONIC DECADES PLUS 6 DIGIT ELECTRO-MECHANICAL COUNTER							x
TOTALIZING					x	x	x
INPUTS:							
Photohead (counting rate 1 kc max)	x			x		x	x
Contactor (bounce filter provided internally—100 cps max)		x	x		x		
Pulse (±6v to 25v—pulse width 30 micro sec min)		x	x		x		
(−5v to −20v pulse width 120 micro sec min)							x
COUNT RATE—recycle 10 kc max	x	x	x	x			
COUNT RATE—non recycle 50 kc max (higher rates available)	x	x	x	x	x	x	
COUNT RATE—1 electronic plus 6 digit electro-mechanical counter, 24,000 cpm							x
2 DECADES—240,000 cpm							x
INPUT IMPEDANCE—35K ohms	x	x	x	x	x	x	x
OPERATING VOLTAGE—105–125 v-ac 60 cps 1ø	x	x	x	x	x	x	x
POWER—45 watts	x	x	x	x	x	x	
30 watts							x
AMBIENT TEMPERATURE—+20°F min, +130°F max	x	x	x	x	x	x	x
OUTPUT:							
Control contacts—SPDT rated at 115 v-ac 10 amps non-inductive	x	x	x	x			
Relay pull in time—20 ms							
Hold in time—100 ms							
Other outputs available							

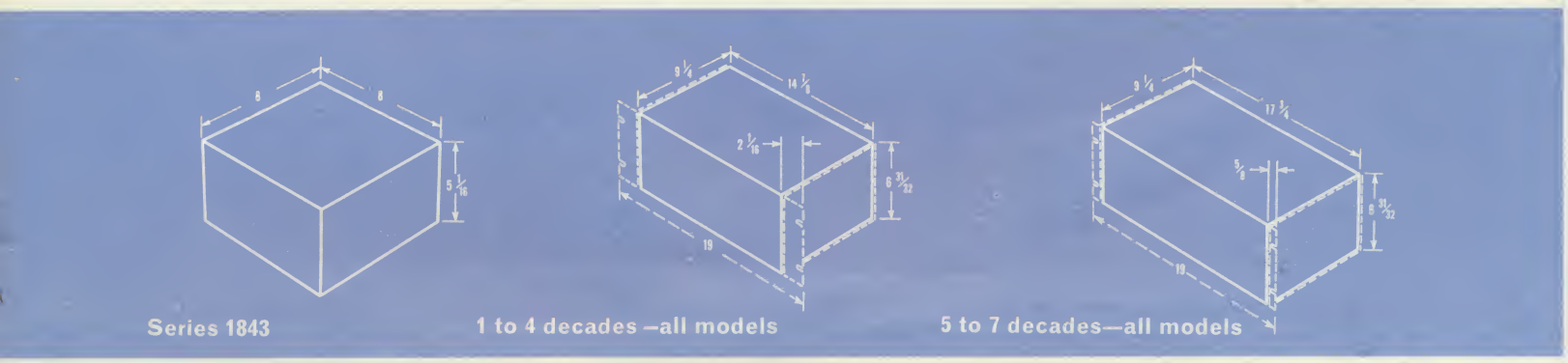
BIDIRECTIONAL

	1844	1845
SPECIFICATION	Complimentary 001 000 999	Non-complimentary +001 +000 −001
DECADES	1 to 6	1 to 6 and ± indicator
PREDETERMINING	Two rows max	Two rows max
RESET	Zero reset and reset to preset	Zero reset and reset to preset
DECIMAL POINT	Position to order	Position to order
OUTPUT	Same as 1835	Same as 1835
TEMPERATURE	+20°F to +130°F	+20°F to +130°F
RESOLUTION	Absolute	Absolute
REVERSING FREQUENCY	25 kc	25 kc
COUNT FREQUENCY (higher frequency available)	50 kc	50 kc
PREDETERMINING FREQUENCY	10 kc	10 kc

INPUT SIGNAL (both models):

TWO LINE INPUT—ONE FOR DIRECTIONAL INFORMATION; ONE FOR COUNTER PULSES	TWO LINE INPUT—ONE LINE FOR ADD PULSES; ONE FOR SUBTRACT PULSES	V-R BIDIRECTIONAL TRANSDUCER WITH INTERNAL AMPLIFIER
DIRECTIONAL SIGNAL: Add: 0 v-dc Subtract: −10 to −25 v-dc	SQUARE WAVES: −10 to −25 v-dc	Two signals in quadrature with phase relationship determining count direction
COUNT SIGNAL: Add: −10 to −25 v-dc Subtract: −10 to −25 v-dc		
with a rise and fall time equal to or less than 1 micro-second and a pulse width equal to or greater than 20 micro-seconds	with a rise and fall time equal to or less than 1 micro-second and a pulse width equal to or greater than 20 micro-seconds	

DIMENSIONS



Series 1843 — 1 to 4 decades—all models — 5 to 7 decades—all models

APPLICATION ASSISTANCE

Our field engineers are ready to help you solve your counting and control problems. Contact him or call us direct:

V E E D E R - R O O T

ELECTRONIC CONTROLS DIVISION
DANVERS, MASSACHUSETTS 01923 ■ (617) 774-6110

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